Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

CW/HW 68: Right Triangle Problems

**Honors Geometry**

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| 1. (a)     respectively. Draw & label the triangle.  (b) What is the value of cos∠A? | 1. (a) If , then . Draw & label the triangle.   (b) What is the length of the hypotenuse? |
| 1. In the figure below, ABCD is a square whose side is 8 units. Find the length of diagonal AC in simplified radical form and to the nearest tenth   **http://regentsprep.org/Regents/math/ALGEBRA/AT2/Pracpic8.gif** | 1. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr48.gif**   **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr49.gif**   1. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr50.gif** C. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr51.gif** 2. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr52.gif** D. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr53.gif** |
| 1. Find the perimeter of the triangle. Round to the nearest tenth. | 1. In the figure below, ABCD is a rectangle with a perimeter is 30. The length of BE is 12.     **http://regentsprep.org/Regents/math/ALGEBRA/AT2/Pracpic5.gif** What is the length of side CE? *(Hint: it’s not 13)* |
| 1. Two vertical poles, one 3 meters tall and the other 5 meters tall, stand a certain distance apart. A line from the top of the shorter pole to the top of the taller pole makes a 15° angle with a horizontal line. Which of the following expresses the horizontal distance, in meters, between the bases of the two poles (rounded to the nearest hundredth)? | 1. You have an extension ladder that you are using to repair a 14-foot chimney with an angle of 75.5°. Which trig ratio could be used to find the length required for the extension ladder to reach the top of the chimney?   A.  B.  C.  D. |
| 1. Circle ALL the statements that apply to this triangle: 2. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/Pracpic.gifhttp://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr1.gif** 3. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr2.gif** 4. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr3.gif** 5. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/PracTr4.gif** | 1. **http://regentsprep.org/Regents/math/ALGEBRA/AT2/Pracpic7.gif**Given the figure below, what is the measure of  x + y? Show your work or explain your answer in the space provided: |
| http://regentsprep.org/Regents/math/ALGEBRA/AT2/Pracpic9.gifChallenge Question 1: Solve for x & y. | |
| **../../../../../Desktop/Screen%20Shot%202016-02-07%20at%209.06.41%20PM**Challenge Question 2: Find the perimeter of the figure at the right, where *AC* = 26, *AD = BF*, and *D* is the midpoint of . | |